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OUTLOOK

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Research Awards Up Sixteen Percent

Research contracts and grants administered by College Park for the 1990 fiscal year topped the \$100 million mark for the first time. This represents a 16.2 percent increase over FY 1989 and more than three times the annual value of such grants a decade ago, according to Victor Medina, director of the Office of Research Administration and Advancement.

According to a report released last month by Medina's office, 1,439 grants and contracts were awarded last year, for a total of \$101,259,673. The federal government provides most of the research money to College Park, with more than 35 departments and agencies accounting for 82 percent of the award total. The National Aeronautics and Space Administration (NASA) is the largest single federal sponsor of research on the campus, providing 17.01 percent of all grant dollars. For FY 1990, NASA awarded a total of almost \$17.4 million.

The National Science Foundation was the next largest federal research sponsor, awarding grants and contracts for nearly \$15.4 million or 15.07 percent of College Park's total awards. The Department of Defense agencies (Army, Navy and Air Force) followed with almost \$15 million, 14.68 percent of all awards.

Rounding out the top group were the Department of Energy (\$6.2 million) and the Department of Agriculture (\$5.3 million). Vari-

ous other federal agencies provided a combined total of \$24.7 million.

State of Maryland departments such as Agriculture, Education, Transportation, Natural Resources and Environment provided 5.5 percent of College Park's research money with more than \$5.6 million. Private contributors such as corporations and foundations provided an additional \$6.9 million. Other sources of funds such as local governments and other universities provided almost \$4.8 million.

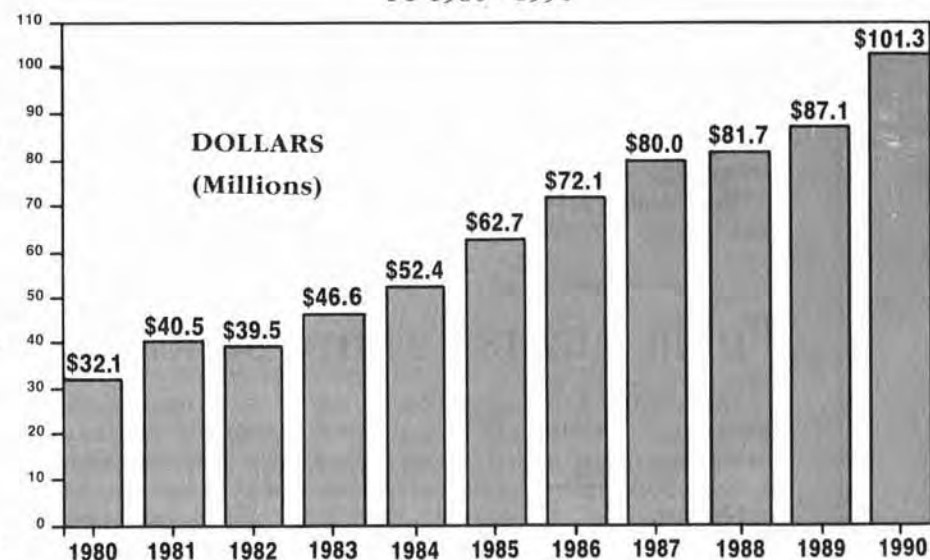
The College of Computer, Mathematical and Physical Sciences received the largest share of research dollars with a total of \$42.8 million. Rounding out the top five College Park recipients were the Colleges of Engineering (\$15.8 million); Life Sciences (\$11.3 million); Agriculture (\$7.6 million); and Education (\$5.2 million).

According to Medina, the federal share of total funding has declined, but increases in private funding and other non-federal support are offsetting that factor.

He points out that for international development projects, federal funding has increased dramatically. "Grants and contracts with the U.S. Agency for International Development increased from \$225,000 in FY 1989 to \$2.4 million in FY 1990," he says. "This is our largest increase in funding from the smaller federal agencies."

Medina says, however, that he cannot make predictions for future

CONTRACT AND GRANT AWARDS TO UMCP
FY 1980 - 1990



federal funding because of the increasing federal budget deficit and the unresolved Middle East crisis. "We will have to wait and see what happens," he says. "There could be an increase in demand for research and development because of current situations, or the opposite could happen and funds could be diverted to the production of Department of Defense hardware. But if there are problems getting federal funding to College Park, it certainly won't be because of a lack of talent here."

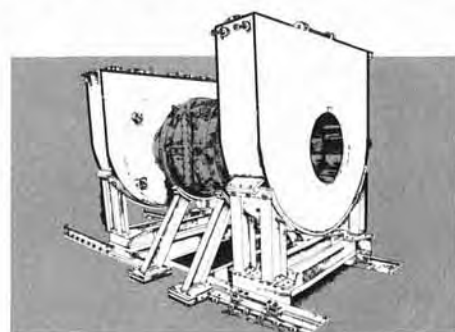
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Kirwan Reviews Funding Cut at Campus Senate Meeting

In his State of the Campus address at the Campus Senate meeting on Sept. 13, President William E. Kirwan outlined details of the six percent cut in this year's General Funds budget mandated by Governor William Donald Schaefer recently. The cut amounts to a \$14.5 million reduction in the university's current budget, said Kirwan.

All state agencies have been asked to submit proposals for a cost containment plan in response to a \$150 million shortfall in the current state budget. As part of this across-the-board cut in General Funds, all institutions in the public higher education system must reduce their General Funds budget by six percent, said Kirwan.

Changes in the university's plan may occur later, but currently, the \$14.5 million funding cut will come from the following sources, deemed to have the least harmful impact on the university's progress in the short run:

- Curtail facilities renewal projects, \$6.5 million;

- Implement a 1 percent cut in salaries and wages, \$3 million; no current faculty or staff salaries are affected by this reduction; it will be implemented through a hiring freeze, by not filling vacant positions or some part-time jobs, and other salary savings measures;

- Restrict purchase of new equipment, with special exceptions made for the libraries and for computer workstations and software purchases, \$4 million;

- Ban out-of-state travel that relies on General Funds, \$600,000;

- Reduce motor vehicles purchases, \$430,000.

After its plan has been approved by the state, the university will seek to have the flexibility to decide where funding cuts should take place, such as having the freedom to determine specific exemptions for out-of-state travel and hiring of necessary personnel, as long as the \$14.5 million total reduction is achieved.

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Maryland Joins Plan to Attract Women and Minorities to Science Fields

The University of Maryland along with 19 other top NSF-funded research universities and the National Science Foundation, have developed a plan of action to attract and retain more women and minorities in science and engineering fields.

The plan, a response to the national need for more professionals in science and engineering, outlines ways to improve the adequacy of pre-college science and mathematics training and increase the number of women and minorities

earning undergraduate and graduate degrees in science.

It also seeks to facilitate the entry of women and minorities into science and engineering careers, particularly faculty positions.

NSF Director Erich Bloch and the presidents of leading NSF-funded universities, among them Harvard, MIT, Columbia, Stanford, Princeton, Berkeley, Illinois, Michigan, Wisconsin and Minnesota, have agreed to undertake joint action and leadership to achieve these goals.

The plan states that while "the leading NSF-funded research universities must place high priority on research productivity, they must also fulfill the primary responsibility of universities—to provide quality education for undergraduate and graduate students."

NSF and the 20 universities have agreed to generate and take part in alliances to develop student retention programs and to seek more effective strategies for increasing the advancement of women and minorities in science.

Public Affairs Lecture Series Set

"America in a Changing World: Succeeding or Getting By?" is the theme of a four-part fall lecture series sponsored by the School of Public Affairs.

The series begins Tuesday, Sept. 25 with "East-West Axis in World Affairs in the Wake of the Revolution of 1989." Public Affairs Dean Michael Nacht will deliver this lecture.

On Tuesday, Oct. 30, I.M. Destler, professor of public affairs, will speak on "Competition with our Friends: Trade."

On Tuesday, Nov. 13, economics professor Martin Baily will discuss "Competition with our Friends: Innovation."

And on Tuesday, Dec. 4, public affairs professor Peter Brown will speak on "Possibilities for Coopera-

tion: The Environment."

All lectures begin at 7:30 p.m. at the University of Maryland's Center for Advanced Research in Biotechnology (CARB) Auditorium in Shady Grove. The series is free and open to the public. For more details, call the School of Public Affairs at 405-6330.

University to Host Super-Computer Symposium

College Park will host "Frontiers '90," the 3rd Symposium on the Frontiers of Massively Parallel Computations October 8-10 at the Center of Adult Education.

The conference is sponsored by the IEEE Computer Society, NASA Goddard Space Flight Center and the IEEE-National Capital Area Council.

Larry Davis, director of UMIACS, the University of Maryland Institute for Advanced Computer Studies, is conference chair.

"As our field progresses, our definition of what constitutes a massively parallel system changes," Davis notes. "For this year's conference, a system was regarded as massively parallel if it contained more than 1,000 processors. The papers chosen for presentations describe architectures, algorithms and applications for such massively parallel machines."

In addition to technical presentations, the conference will include tutorials by two of the top scientists in the field—Michael Duff, professor of applied physics and head of the Image Processing Group at University College, London, and Guy Steele, senior scientist at Thinking Machines Corporation—and a panel discussion focusing on the future of massively par-

allel computing. The symposium's program chair is Joseph F. Ja'Ja, professor of electrical engineering.



OUTLOOK

Outlook is the weekly faculty-staff newspaper serving the College Park campus community.

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UNIVERSITY OF MARYLAND AT COLLEGE PARK

Kirwan Discusses Funding Cut

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This budget reduction is unfortunate, but should be viewed in the national context, as part of a larger economic downturn, said Kirwan. He expressed the hope that the university would not allow this one-time problem to slow down the university's current momentum. Recent cuts in other state higher education budgets are even more severe than those received by College Park, said Kirwan, who said that this news is ironic because it comes at a time when College Park is making tremendous progress and has the strongest support in its history.

The senate meeting was presided over by the new chair,

Bruce Fretz, Psychology. Senate actions included electing Gerald Miller, Chemistry, as chair-elect. In addition, an election for a new executive committee and for the Council of University System Faculty also was held. These results will be announced in a forthcoming Outlook.

In other actions, a name change was approved for the Department of Art History to become the Department of Art History and Archaeology, and a master of Landscape Architecture degree was approved.

The next meeting of the Campus Senate will take place on Monday, Oct. 22.

Roz Hiebert

The Outstanding Woman of the Year, Vicki Freimuth, associate professor in the Department of Speech Communication, will be the featured speaker at a program honoring her achievements on Tuesday, Sept. 25 at 3:30 p.m. in Room 1400, Marie Mount Hall. New women faculty members also will be welcomed to the university and a reception will follow the program. Sponsored by the President's Commission on Women's Affairs, the event is open to the campus community. Call 405-5806 for information.

AIDS Awareness Week Being Planned at College Park

Faculty, staff and students at College Park will be encouraged to reflect upon how the AIDS epidemic is affecting life at the university and society as a whole during AIDS Awareness Week Nov. 26—Dec. 2.

Under the theme "Bridges to Understanding," a variety of activities will be held to spotlight the ways in which AIDS, a fatal disease that has killed more than 80,000 Americans in the last decade, affects life at the university.

Major activities will include a candlelight march followed by a gathering in the Chapel, a day of arts performances in the Atriums of the Art/Sociology Building and Stamp Student Union, a focus on AIDS in academic classes and screenings of the films "Longtime Companion" and "Common Threads: Stories From the Quilt."

The idea for the week originated with Bill Patterson, assistant professor of theatre. Patterson, who is involved with the NAMES project (AIDS Memorial Quilt), saw a need for the university community to focus on the problem.

"AIDS is already here. We've had cases of AIDS in our workplace, and there are many people at this university who are caring for loved ones with the disease or are grieving their losses. As this epidemic continues to grow, we will find ourselves living with AIDS more and more," Patterson says.

"For the people in our community who live daily with the disease—either as caregivers or people with HIV infection or AIDS—we want to recognize their struggle and offer what support we can. For those not yet touched directly by AIDS, we want to awaken them to how this disease is affecting their lives even if the impact is not so readily apparent.

"Also, in a larger sense, as an educational institution, we must be

looking hard at the profound effect this disease is having on our society—on our health system, our politics, our economy."

Last spring, Patterson enlisted support through a mailing to colleagues. A university-wide group volunteered to serve on the project's steering committee, including representatives from behavioral and social sciences, arts and humanities, health and human performance, the Health Center, campus activities, public information, Hillel House, physical plant, student affairs, theatre, human relations, experiential learning, human relations, English, Stamp Student Union, the Art Gallery, the Episcopal Campus Ministry, the Gay-Lesbian Student Union, health education, the Graduate Student Association, administrative affairs and personnel.

Wendy Owens, director of the Art Gallery, and Gretchen Van der Veer, assistant to the vice president of student affairs, are serving with Patterson as co-chairs of the committee. Owens is coordinating academic and arts programs; Van der Veer is coordinating special events and publicity.

J. Robert Dorfman, vice president for academic affairs, has sent a university-wide letter to faculty members urging participation in the week. Dorfman is asking the faculty to include, wherever appropriate, a discussion of AIDS in their classes.

"The response has been excellent," Patterson says. "AIDS is a disease that has been stigmatized in so many ways that one always wonders how people will react when it's raised.

"With the support and open-mindedness that have been displayed thus far by the campus community, I'm looking forward to a positive and enlightening week of activities and dialogue. The silence that people often feel they must maintain about this disease is one of its most demoralizing qualities. Hopefully, we can begin to break through the silence on this campus," he says.

Planned activities include:

- A candlelight march followed by a gathering in the Chapel where students, alumni and faculty and staff members will describe personal experiences with AIDS. Some speakers will talk of caring for loved ones with AIDS, while others will talk of living with the disease. (Persons interested in speaking at the gathering should contact Jon Boone, assistant dean of arts and humanities, 405-2087.)

- Workshops on "AIDS in the Workplace" will be held for university employees. Sponsored by the department of personnel, the sessions will focus on the responsibilities and dilemmas facing supervisors and co-workers when an employee is diagnosed with AIDS. (To date, there have been three known cases of AIDS in the workplace at College Park.)

- Screenings of "Longtime Companion" and the Academy Award-winning documentary "Common Threads."

- A day of arts performances in the Atriums of the Art/Sociology Building and Stamp Student Union will show how artists have tried to comprehend the meaning of the disease.

- Throughout the week, faculty members will use regular classes to focus on the implications of AIDS in their fields of study. For instance in business and management, AIDS will be discussed as a personnel issue; in philosophy as an ethical issue.

Other faculty members are planning special assignments related to AIDS. Jim Thorpe, assistant professor of housing and design, will stage an AIDS Awareness Week poster design contest among his students.

For more information on the week or to suggest ideas for activities call Owens, 405-2763; Patterson, 405-6692; or Van der Veer, 314-8429.

Brian Busek



AIDS Awareness Week

UNIVERSITY OF MARYLAND AT COLLEGE PARK

Logo designed by Jim Thorpe, assistant professor, Housing and Design

Summer Program Gives Students a Taste of What Graduate School is Like

Lori Alexander had often thought she might go to graduate school, but this summer after a six-week program here that included weekly meetings with her professor and many trips to the National Library of Medicine using MEDLAN, a medical database, she says it is a certainty.

"The summer research program definitely swayed me toward getting my Ph.D. in health education," says the 20-year-old from West Hyattsville. "The experience gave me a sense of what graduate research is like and that I could handle it."

Alexander, a senior majoring in dance and health science and policy at the University of Maryland Baltimore County, was one of thirteen students to attend the second annual Summer Undergraduate Research Program (June 4-July 13) at the University of Maryland at College Park.

Open to all African-American, Hispanic/Latino, and American Indian undergraduate students who have completed their sophomore or junior year, the summer undergraduate research program was designed to give academically talented minority students a closer, more supportive look at the realities of graduate school.

"The program presents an excellent opportunity for each student to work closely with a professor in his or her area of expertise," says Carla Gary, associate director of the Office of Graduate Minority Affairs which runs the program.

Students selected for the program received a \$2,000 stipend, housing fees, round trip travel expenses, and registration and tuition fees. Students enrolled at College Park were also able to receive 3-6 hours of undergraduate credit for the summer program.

While most of the students enrolled were undergraduates, some already had college degrees, were well-established in careers, and had even raised families.

Linda Williams is a resident of Baltimore, Maryland and the mother of seven children. Having earned a B.A. degree from Coppin State this spring, Linda came to the summer undergraduate research program to explore her interest in early childhood education with associate professor Elisa Klein, director of the Center for Young Children.

Williams says the summer research program "provided me with an orientation to graduate research and introduced me to research methods, something I had no prior experience with."

As a result of her experiences, Williams will be enrolling in the Early Childhood Education program of the College of Education in the spring of 1991.

Charles Murphy, 43, a resident of Columbia, Maryland, also has a family with two children ages 21 and 14. He currently works as a technician in the CCU/ICU unit of



Prince George's Community Hospital. He is also a recovering addict to drugs and alcohol.

"I had always wanted to go to school," says Murphy, "so when I stopped drinking four years ago, I decided to do something for myself."

At the time, Murphy was finishing an A.A. degree at Coppin State College in Maryland. But the demands of work, family, and his substance abuse stretched the program to eight years. To get his bachelor's degree, Murphy went to school full-time in 1988, and graduated with a B.A. from Coppin State in the spring of 1990.

During his time as an undergraduate, Murphy realized he would need at least a Masters' degree to achieve his goal of becoming a counselor to help addicts and their families cope with the problems of drug abuse.



Murphy's research project involved an analysis of the barriers to individuals seeking career changes. During the project, he worked with Mary Ann Hoffman, associate professor in the department of counseling and personnel services (CAPS).

The quality of his work was so high that Murphy was encouraged to apply to the CAPS program here and was admitted for the fall semester.

The Office of Graduate Minority Affairs is already planning to expand next year's Summer Undergraduate Research Program.

"It's clear that as we near the 21st century, the workforce is going to change color and gender," says Gary. "The success of minorities and women in higher education is necessary for the future of us all."

John Fritz



Participants of the Summer Undergraduate Research Program are (left to right) Lori Alexander, Charles Murphy, and Linda Williams.

Grad School Begins New Post-doctoral Fellowship Program for Black Scholars

This fall, five minority scholars are taking part in a new Post-doctoral Fellowship Program for Black Scholars.

"The purpose of this award is to allow recent black doctoral graduates a chance to participate in the research enterprise of the university, to forward their own research careers, and to interest them in careers in an academic institution," says Jacob K. Goldhaber, acting dean of the graduate school.

The university has increased its support for fellowships and grants to black graduate students from \$119,000 in 1986 to the current level of \$1.6 million. This money is allocated from a state desegregation fund.

"The addition of a post-doctoral fellowship program is a logical extension to the graduate support for minorities on campus," says Joanna Schmeissner, director of the graduate fellowship office.

Mark Carter earned a Ph.D. in physics from Stanford University. He plans to work with James Gates, Jr, professor in the Department of Physics and Astronomy on "Spinor Variable Approach to

Hamiltonian Quantum Gravity."

Rachel Grant earned her Ph.D. in secondary education at College Park and will continue her research on text processing with associate professor Beth Davey in the Department of Curriculum and Instruction.

Mark Kellum received his Ph.D. in mathematics from Washington. He will work with mathematics professor Henry King on Riemannian foliations.

Walter Miller holds a doctorate in mathematics from the City University of New York. He proposes to investigate the convergence of finite approximations of invariant measures of dynamical systems with his sponsor, mathematics professor Michael Brin.

Clarence Talley received his Ph.D. in sociology from Maryland. He will investigate the social, economic, and demographic characteristics of designated labor market areas in the U.S. with a majority of black residents. His campus sponsor is William Falk, professor and chair of the sociology department.

John Fritz

Program for Baltimore Teachers to Focus on Women's Poetry

When the Center for Renaissance and Baroque Studies' CAST program moves into Baltimore this fall, it will offer a special initiative for a special situation.

Martha Nell Smith, associate professor of English at College Park, and Margaret Reid, professor of English at Morgan State University, will conduct a year-long institute for 30 public and private secondary school teachers in Baltimore on women's traditions in American poetry.

As part of the institute, the teachers will explore the influence of race and gender on the treatment of literature and discover new texts for their high school curricula. Throughout the course, the teachers will study pairs of poets, with each pair including poets from Anglo-American and African American traditions. For instance, Phillis Wheatley will be studied alongside Anne Bradstreet, Frances E.W. Harper with Emily Dickinson, Alice Dunbar-Nelson with Marianne Moore, and Angelina Weld Grimké with Elizabeth Bishop.

The program will include lectures and readings by contemporary poets, including Bernice Johnson Reagon, Lucille Clifton, Sonia Sanchez and Sandra Mortola Gilbert.

The CAST (Center Alliance for Secondary School Teachers and Texts) program, now in its third year, is designed to help improve the instruction of the humanities at high schools in Maryland by offering secondary school teachers an invigorating year of study in the subjects they teach. As part of the program, College Park English department faculty members conduct institutes at locations through the state. In past years, institutes have been held in Frederick, Dorchester, Baltimore, Prince George's and Montgomery counties, but never in Baltimore city. The program is funded with a \$350,000 National Endowment for the Humanities grant.

Jane Deren, coordinator of the CAST program, sees significance in bringing a program with a multicultural perspective into Baltimore, where more than 80 percent of both teachers and students in the public school system are black.

"By studying various literary traditions together, it acknowledges the contributions of all groups," she says.

The institute represents a departure for the CAST program in several respects. It is the first time that a College Park faculty member will team-teach an institute with a faculty member from another in-

stitution. In addition, past institutes have tended to focus on dramatic and prose literature rather than poetry.

"Teachers often find poetry a difficult subject to teach because students are resistant to it at first," Smith says. "However, I've found that once poetry begins to become alive for students, they find it very exciting."

"[In the institute] we'll work on strategies to create that excitement. Poets will attend sessions frequently and read from their work because hearing a poem read aloud adds to the work. We'll also explore the question of what makes a poem in the 1990s. For instance, is the music that students hear on the radio a form of poetry?"

Pairing Anglo and African American writers will generate interesting issues for discussion, Smith says. Among the poems of Frances Harper, a black contemporary of Emily Dickinson, is a poem, "Learning to Read." That Harper would see learning to read as something less than a given in life is one indication that she writes from a much different socio-economic perspective than Dickinson, Smith says.

Institute sessions will begin in late September and continue throughout the academic year.

Brian Busek



Martha Nell Smith will teach an institute for high school teachers this spring.

Walking in the Footsteps of Handel—On the Very Floor!

In 1685 George Frideric Handel was born in the little town of Halle, in Saxony, which after World War II, ended up as part of East Germany.

In the fall of 1989 the Berlin Wall came down and in the summer of 1990, professor and conductor Paul Traver brought the Maryland Handel Festival's acclaimed production of the oratorio, *Semele* for performance at the world famous Handel Festival held each year in the town of the great composer's birth.

It was a sell out.

One of the first major cooperative musical efforts since the end of the old regime, the concert featured an American chorus and conductor and East German vocal soloists and orchestra. Audiences were enthusiastic, with many 'bravos,' yelling and curtain calls. The German press designated *Semele* as the high point of this year's Handel Festival—"And I tend to think it was,"

Traver adds with quiet pride.

The chorus also performed a choral concert of German and American music in a former church, including in the program a major work by the pre-Bach composer, Samuel Scheidt, also a native of Halle.

During a rehearsal of this music, the house manager asked to speak to the chorus. Standing on the podium next to Traver, he told the chorus that on the very spot where their conductor was standing, Scheidt had been baptized more than 400 years before. Traver and his singers stood in awed silence.

The Maryland musicians were in for an even bigger thrill. Asked to sing in the chapel of nearby Weissenfels Castle, they were told as they entered that not only had Bach and Handel both performed here, but they had actually walked on the very floor the group was about to step on.

The authenticity of such mo-

ments is unforgettable for musicians. As Maryland student accompanist Lino Rivera said, "I'll never read and think about Bach and Handel in the same way—I've been there."

In Belgium, some sixty other chorus members joined the fifty-voice Chamber Singers to sing well-received performances of Mendelssohn's *Elijah* and an a cappella concert of German and American music in such picturesque settings as Louvain and an old abbey near Namur.

Not resting long on their laurels, the well-seasoned travelers returned and almost immediately were caught up in the excitement of preparing for the celebration of the Maryland Handel Festival's tenth anniversary. The festival, coming up October 31-November 4, is sure to bring the chorus new accolades for their world class musicianship.

Linda Freeman

Maryland Handel Festival

Tenth Anniversary Season

Oct. 31-Nov. 4

- Concerts, Lectures, Recitals
- Special gala performance of *Messiah* in Baltimore's Joseph Meyerhoff Symphony Hall Oct. 31
- Full-scale performance of the opera *Agrippina* in Tawes Recital Hall Nov. 3
- First American performance of the oratorio *Joseph* in Memorial Chapel Nov. 4

For Information call 301-405-5571.



New Chair of Physics Discusses Challenges

Derek A. Boyd, professor in the Laboratory for Plasma Research, became chair of the Department of Physics and Astronomy July 1. He succeeds Chuan S. Liu, who had served in that post since 1985. Liu will resume his position as a professor of physics.

Boyd, an experimental plasma physicist, joined the university in 1973 as a research associate. He became a full professor in 1983. Before coming to the University of Maryland, he was a research assistant at Stevens Institute of Technology in Hoboken, N.J. where he earned his Ph.D. in physics in 1973. Early in his career he was a research associate at the United Kingdom Atomic Energy Authority's Culham Laboratory. Boyd also has been a visiting scientist with the Joint European Torus in England.

Boyd is a member of the American Physical Society and the American Association of Physics Teachers. He also serves on the editorial advisory board of the *International Journal of Infrared and Millimeter Waves*. Boyd is a fellow of the American Physical Society and in 1988 was a visiting fellow at Wolfson College in Oxford. He has published 70 articles in scientific journals and has authored many invited and contributed papers to numerous major scientific conferences and meetings.

During the five years of his appointment, Boyd expects to face several challenges, the biggest being the retirement of faculty members. "We may have about two retirements per year through 1995, and about four per year during the second half of the decade," he says.

"The challenge will be to raise the level of the department by hiring high quality people—while losing several key faculty members who currently are with us. We have to find ways to get better without getting bigger."

Boyd says the department will have to improve salaries and maintain important grants if it is to attract and keep top quality scientists.

Boyd points to Soviet physicist Roald Sagdeev (who recently ac-



Derek A. Boyd

cepted a distinguished professorship in the department) as an example of the type of faculty the department is hoping to hire.

"Sagdeev is going to greatly enhance our reputation as a leading physics department, and he will increase our cooperative ties with other Soviet physicists," Boyd says.

Sagdeev is widely regarded as one of the top physicists in the world. He will head the university's new East-West Science and Technology Center, which will work toward creating scientific linkages between the United States and the Soviet Union.

"We also are taking a hard, comprehensive look at ourselves through an evaluative committee headed by Alex Dragt (professor of physics and former department chair)," Boyd says. "This will help us to debate our future and determine directions to take."

One direction the department needs to take, according to Boyd, is to eventually triple the number of women on its faculty. "Of 75 faculty members, only two are women," he says. "There is no way we can afford to stay like that. We have to explain our poor record for recruiting women and we have to begin correcting this systematic error soon."

Boyd says the department must

begin placing a higher emphasis on education as well. "In recent years we have been attracting better students, but we've been keeping teaching standards at the same level," he says. "We are a good research department, but we now have to elevate the status of teaching by providing rewards for it. With better courses and better taught courses, we can provide the intellectual stimulation our students deserve."

Boyd believes the department also could extend its interaction with the rest of the university and with local communities. "We need to reach out to area high schools and organizations and let them know about our physics programs," Boyd says. "This is another way we can enhance our educational mission."

Boyd points to several improvements occurring in the department as well. The Center for Superconductivity Research continues to grow as additional staff members are hired and the center's offices are renovated. The department also is searching for a top physicist to fill a newly-created endowed chair.

"The key for the coming decade will be to keep and attract the best people, despite the fact that we will be losing some of our best through retirements," Boyd concludes.

Fariss Samarrai

Maryland Policy Studies Focuses on Blacks in Maryland

The current edition of *Maryland Policy Studies*, published by the Bureau of Governmental Research in the School of Public Affairs, examines the social and economic condition of blacks in Maryland.

The findings in the various articles show persistent disparity in black-white incomes, low levels of minority business enterprise, and a deterioration in the economic condition of female-headed households. Several articles focus on problems facing the City of Baltimore where a declining manufacturing sector and growing spatial distance between residence and work have retarded the economic opportunity of low-income blacks.

The articles have been adapted from papers presented at a conference on the social and economic condition of blacks in Maryland convened this past summer by the Bureau of Governmental Research in cooperation with the university's Afro-American Studies Program.

The Bureau's mission, according to its director Allen Schick, is to bring policy researchers and government officials together to discuss issues affecting state and local government in Maryland.

Y.Y. Hsu Appointed to Atomic Energy Post in Taiwan

Y.Y. Hsu, a professor in the Department of Nuclear Engineering, has accepted an appointment to chair the Atomic Energy Council of the Republic of China.

During the next two years, while on leave of absence from the university, he will head a 12-member, cabinet-level post that oversees nuclear reactor safety in Taiwan. Hsu says that six reactors at three power plants there generate about half of the nation's electrical power needs.

Hsu notes that the island nation is heavily dependent on exports and consequently ample power is

of critical importance to the country's industry and economy.

While a visiting professor at a Taiwan university with an extensive nuclear engineering department, he was asked to make a presentation to the nation's leaders on reactor safety and improvements. He was then asked to consider taking the post.

"There is a kind of siege mentality in the (nuclear power) industry worldwide because of the accidents at Three Mile Island and Chernobyl," the Taiwan native says. "My heritage and profession made me want to accept this assignment."



Y.Y. Hsu

Maynard Mack on Undergraduate Teaching

Maynard "Sandy" Mack, Jr., associate professor of English, will meet Sept. 24 with faculty members to discuss the new CORE general education courses. The following are excerpts of his prepared remarks.

I am not fresh and green enough to believe there is very much that I can say that will help you in your epic struggle to teach the new CORE general education courses better than they have been taught in the past. Like marriage, teaching is a stunningly intimate and personal art and each of you will have to sort out, as you always have in the past, the best ways to reach a group of insecure, untrained, and sometimes reluctant undergraduates.

We talk about the drama of the classroom, and it is sometimes that, but "epic" is really more what it is about; the burden of the whole culture sits on teachers' shoulders, and the problem is that a course is not a tidy five-act performance ending with insight or metamorphosis, marriage or death, but rather a long journey, from Troy to Rome, to keep the fires of civilization burning. Troy is always in flames; our very mortality not to mention our venality sees to that. But the new city is always waiting to be built, new fires waiting to be lit, young people waiting to be taught how to be human.

pens when a program goes out of the dark committee room and into the blazing heat of the classroom.

The real cooking begins: committed teachers try to make things better for students who need to be taught how to learn. We know our audience very well, and our job is to make CORE work with our students as they are. Anything goes, anything that works at getting lights to go on, students to work, ideas loved and respected. You have not only license but an obligation to try almost anything that might work....

The present administration, specifically Brit Kirwan, started things moving by singling out undergraduate education as one of the focus points when the campus was up for routine reaccreditation six years ago. More fuel was added by a dozen national studies from groups like the Association of American Colleges and the Carnegie Institution all saying that professionalization and departmentalization were making our university campuses unsafe for undergraduates.

Students simply were not receiving enough guidance and inspiration to learn how to become active members of the academic community. They were being processed, not learning *how* to process; they were

campus community. He just talked, cajoled, and negotiated, with a little help from the rest of his committee, until *Promises to Keep* became the pivot around which the campus, turned its brontosaurian body 45 degrees from the straight path of research and discovered that it had the resources and the obligation to address its undergraduate program as well. *Promises to Keep* was hailed by the Regents as the best reading they had had in fifteen years; the Campus Senate approved it with minor changes; and Dean of Undergraduate Studies Kathryn Mohrman arrived on campus charged with implementing it....

The major importance, and here is my main point, the major importance of *Promises to Keep* is that it calls for smaller classes and more active involvement by students in the process of learning. This is the throbbing center. This is the still point in the turning world. Tinkering with hours in area A as opposed to hours in area C will never revolutionize education. But a serious commitment to smaller classes where possible, and more active learning *everywhere*, will.

Now, smaller classes are going, unfortunately, to have to wait a few years until there is more money. College Park does have an immense amount on its plate all at

"Teaching must first be a matter of people so it can become a matter of knowledge... minds are never-resting force fields and a part of our job has to be to keep them energized."



Maynard "Sandy" Mack, Jr.

As teachers, we are not allowed the luxury of tragedy rather, ours is the agon of epic, of the long-distance run, the partial victory, the quiet failure, the lonely dark night, and the weary acceptance that middling success may be greeted by our class as enthusiastically as smashing, shattering, epiphanic victory. We accept the grays we can achieve while keeping as our goal lighting that gray to blazing light or, as our Provost Bob Dorfman likes to put it, creating a campus on which everyone's head is on fire.

You know all this, and yet this occasion is supremely important. It is the first big, public step to fulfill the spirit of the Report of the Senate Ad Hoc Committee on Undergraduate Education, better and properly known as the Pease Report, titled *Promises to Keep*....The campus has actually put its *mind* to making the changes, and promises to put its pocketbook there as well. But something wild and reckless hap-

being treated as products, not junior members in a millennium-old experiment called the university.

The triggering match was lit by this campus' reorganization, Balkanization some of us called it, whereby an incoming student at 17 or 18 was going to be confronted with a fifteen-headed monster most parts of which she or he had never encountered high school. Whatever the rights and wrongs of the campus reorganization into little colleges and schools, it was not planned with undergraduates in mind, who are and wish to remain blissfully ignorant of the divisions educational management may select.

Some of us cried out in pain, the Senate bought us off by promising a committee, the committee got Professor John Pease of Sociology as its chairman, it reinvented the wheel, praised apple pie, put a few teeth in the science requirement, and then something wonderful happened.

John Pease out-talked the whole

one time, and access to classes of any size probably has to come first. We all trust the campus' commitment to increased spending for CORE is serious. But more active learning is something that can be fostered right away, this year, in your classes....

The heart of the CORE experiment is not numbers or hours required. It is the transactions that either will or will not take place in your classrooms. They take place, apparently, in far too few classrooms on campus. *Promises to Keep* commits us to trying to change that. Sometimes doing it is even easier, and more fun than pretending we are professionals with bottomless wells of information and answers, known things, facts. Sometimes it is easier to admit the fragility of the whole construct of knowledge, and invite our students to work with us. I hope you'll find that.

CALENDAR

SEPTEMBER 24-OCTOBER 3



Improvisations Unlimited produces unlimited smiles at its September 30 "Performance for Children." Reservations required; call 405-3190.

24 MONDAY

Art Gallery Exhibition: "Trouble in Paradise," today-Oct. 26, The Art Gallery, Art/Soc Bldg. Call 5-2763 for info.

Center for International Extension Development Colloquium: "Norway's Research/Extension Circles: An Innovative Approach to Agricultural Information Sharing," featuring Ruth Haug, Agricultural and Extension Education, noon (bring brown bag lunch), 0115 Symons Hall. Call 5-1253 for info.

College of Agriculture and College of Life Sciences Reception for New Students, 1-4 p.m., 1208 Zoo/Psych Bldg. Call 5-2080 for info.

Teaching Workshop, for all faculty teaching CORE-approved general education courses, 1:30-4:30 p.m., Maryland Room, Marie Mount Hall. Call 5-9359 for info.

Time Management Workshop, 3-4:30 p.m., 2201 Shoemaker Bldg. Call 4-7693 for info.

Computer Science Colloquium: "Towards Industrial Strength Software Development Environments," featuring Dewayne E. Perry, AT&T Bell Laboratories, reception, 3:30 p.m., 1152 A.V. Williams Bldg., lecture, 4 p.m., 0111 Classroom Bldg. Call 5-2661 for info.

Horticulture Seminar: "Tissue-printing Techniques in Plants," featuring Rosannah Taylor, USDA Plant Hormone Lab, Beltsville, 4 p.m., 0128 Holzappel Hall. Call 5-4360 for info.

Art History Lecture: "Why Does Art Offend?," featuring Jane Adams Allen, art critic, 4 p.m., 2203 Art/Soc Bldg., reception to follow. Call 5-1479 for info.

Space Science Seminar: "How to Make the Most of the NSSDC," featuring Susan Kayser, National Space Science Data Center, NASA/Goddard, 4:30 p.m., 1113 Computer and Space Sciences Bldg. Call 5-4829 for info.

SUPC's Issues & Answers Committee Movie: "Thin Blue Line," 6:30 p.m., discussion with Randall Adams, 8 p.m., Hoff Theatre. Call 4-8495 for info.

25 TUESDAY

Maryland Center for Quality and Productivity Seminar: "Introduction to Total Quality," today and tomorrow, 8 a.m.-4:30 p.m., Calvert Holiday Inn, Beltsville. Call 80-4535 for info.

Zoology Lecture: "Episodic Hypoxia in the Chesapeake Bay: Interacting Effects of Recruitment, Behavior, and a Physical Disturbance," featuring Denise Breitburg, Benedict Estuarine Laboratory, noon, 1208 Zoo/Psych Bldg. Call 5-6948 for info.

Meteorology Seminar: "Precipitation Change in the U.S.S.R.," featuring Pavel Groisman, State Hydrologic Institute, Leningrad, U.S.S.R., 2 p.m., 2114 Space Sciences Bldg. Call 5-5391 for info.

Woman of the Year Program: Honoring Vicki Freimuth, speaker, and welcoming new women faculty members, 3:30 p.m., 1400 Marie Mount, reception to follow in Maryland Room, Marie Mount. Sponsored by President's Commission on Women's Affairs, call 5-5806 for info.

Women's Field Hockey vs. Penn State, 7 p.m., Astroturf Field. Call 4-7064 for info.

School of Public Affairs Lecture: "East-West Axis in World Affairs in the Wake of the Revolution of 1989," featuring Dean Michael Nacht, Public Affairs, 7:30 p.m., Center for Advanced Research in Biotechnology Auditorium, Shady Grove. Call 5-6342 for info.

26 WEDNESDAY

Employee Development Seminar: "Taking the Puzzle out of Procurement and Supply," 9 a.m.-2 p.m., registration, 8:45 a.m., Maryland Room, Marie Mount Hall. Call 5-5651 for info.

First Look Fair, today, 10 a.m.-4 p.m. and tomorrow, 10 a.m.-2 p.m., Engineering Field. Call 4-7174 for info.

Counseling Center Research & Development Meeting: "Student Apathy in the 1990s," featuring Daniel Cones, SGA, noon-1 p.m., 0106-0114 Shoemaker. Call 4-7691 for info.

Men's Soccer vs. Old Dominion, 3 p.m., Soccer Field. Call 4-7064 for info.

Center on Population, Gender, and Social Inequality Lecture: "If Children Are Not Inferior, Then Sometimes They Must Be Bad," featuring Warren Sanderson, The World Bank, 3:30 p.m., 2115 Art/Soc Bldg. Call 5-6422 for info.

Astronomy Colloquium: "The Structure of the Earth's Magnetopause and Other Boundary Layers in Space Plasmas," featuring Peter Cargill, Astronomy, 4 p.m., 1113 Computer & Space Sciences Bldg., refreshments, 3:30 p.m., 0254 CSS. Call 5-1524 for info.

Memorial Service, for the Reverend Canon Wofford K. Smith, 4 p.m., Memorial Chapel. Call 5-8453 for info.

Writers Here & Now Reading, featuring Elena Castedo, author of *Paradise*, 8 p.m., 3101 McKeldin Library (Katherine Anne Porter Room). Call 5-3819 for info.

27 THURSDAY

Maryland Center for Quality and Productivity Seminar: "Developing Meaningful Measures of Quality and Productivity," today and tomorrow, 8 a.m.-4:30 p.m., Calvert Holiday Inn. Call 80-4535 for info.

Annual Arts and Humanities Faculty Assembly, 3 p.m., reception to follow, 2203 Art/Soc Bldg. Call 5-2095 for info.

Meteorology Seminar: "Estimation of Precipitation From Satellite Infrared and Microwave Observations," featuring Robert Adler, NASA/Goddard, 3:30 p.m., 2114 Computer and Space Sciences Bldg., refreshments at 3 p.m. Call 5-5392 for info.

SUPC's Glass Onion Concerts Thursday Night Atrium Concert Series, 8 p.m., Atrium, Stamp Student Union. Call 4-8495 for info.

Early American History Seminar: "The Weber Thesis Revisited: The Protestant Ethos and the Reality of Capitalism in Early America," featuring James Henretta, History, 8 p.m., 0109 Center of Adult Education. Call 5-4265 for info.

28 FRIDAY

"Lunch n' Learn" Mental Health Lecture: "Managing Sexually Compulsive Behavior," featuring Katherine Bethell, Counselor, Washington, DC, 1-2 p.m., 3100E Student Health Center. Call 80-8106 for info.

Men's Soccer vs. Radford, 2 p.m., Soccer Field. Call 4-7064 for info.

30 SUNDAY

Dance Performance for Children, Improvisations Unlimited, 2 p.m., EE Studio/Theater. Reservations required. Call 5-3190 for info.

Women's Soccer vs. Duke, 4 p.m., Soccer Field. Call 4-7064 for info.

Wesley Foundation Meeting: "My Career and Christianity," dinner at 6 p.m., meeting at 7 p.m., University United Methodist Church. Call 422-1400 for info.

Wanderlust: "Scotland and the Scottish Isles," today at 3 p.m. and tomorrow at 8 p.m., Hoff Theatre. Call 4-8495 for info.

1 MONDAY

Art Gallery Exhibition: "Trouble in Paradise," today-Oct. 26, The Art Gallery, Art/Soc Bldg. Call 5-2763 for info.



Campus Recreation Activities Registration, Mon.-Thu. 8:30 a.m.-6 p.m., Fri. 8:30 a.m.-4:30 p.m., 1104 Reckord Armory. Call 4-7216 for info.

Study Skills Workshop, 3-4:30 p.m., 2201 Shoemaker Bldg. Call 4-7693 for info.

Computer Science Colloquium: "The UNIX System and Software Productivity," featuring Brian Kernighan, AT&T Bell Laboratories, reception, 3:30 p.m., 1152 A.V. Williams Bldg., lecture, 4 p.m., 0111 Classroom Bldg. Call 5-2661 for info.



Over 300 student organizations, local businesses, campus offices and departments will be represented at this year's First Look Fair, September 26 & 27. Call 314-7174 for information.

Horticulture Seminar: "Modified Atmosphere Packaging Films for Horticultural Crops," featuring Donald Schlimme, Horticulture, 4 p.m., 0128 Holzappel Hall. Call 5-4630 for info.

Space Science Seminar: "Formation of Spherical Shell Distribution by Cometary Ions in the Solar Wind: Theory and Observations," L. F. Ziebel, Universidade Federal do Rio Grande do Sul, Brazil, 4:30 p.m., 1113 Computer and Space Sciences Bldg. Call 5-4829 for info.

SEE Productions Open House, 5-6 p.m., 1104 Stamp Student Union. Call 4-8342 for info.

Guarneri Open Rehearsal, 7 p.m., Tawes Recital Hall. Call 5-5548 for info.

Women's Studies Lecture: "Voices of Consciousness: The Emergence of African American Women's Leadership," featuring Bernice Johnson Reagon, National Museum of American History, 8 p.m., 2203 Art/Soc Bldg. Call 5-6877 for info.

2 TUESDAY

Employee Development Seminar: "Employee Relations and the Supervisor," 9 a.m.-4 p.m., registration, 8:45 a.m., 1152 A.V. Williams Bldg. Call 5-5651 for info.

Institute of Applied Agriculture Picnic Lunch, 11 a.m.-2 p.m., Lawn of Jull Hall. Call 5-4686 for info.

3 WEDNESDAY

Employee Development Seminar: "English Refresher," today and tomorrow, 9 a.m.-4 p.m., 1143 Stamp Student Union. Call 5-5651 for info.

Women's Soccer vs. U.M.B.C., 1 p.m., Soccer Field. Call 4-7064 for info.

Zoology Lecture: "A Search for Markers of Lens Determination in Chicken Embryos," featuring Charles Sullivan, Biology, Grinnell College, 3 p.m., 1208 Zoo/Psych Bldg. Call 5-6922 for info.

* Admission charge for this event. All others are free.